TORBIN, N. M., (TPI)

"The X-ray absorption factor increases with increasing molecular weight of pressed alkali halide salts"

Report presented at a Conference on Solid Dielectrics and Semiconductors, Tomsk Polytechnical Inst., 3-8 Feb. 58.
(Elektrichestvo, '58, No. 7, 83-86)

TORBIN, N.M.

Incomplete breakdown and radiation in crystals of NaCl in strong electric fields. Fiz. tver. tela 2 no.10:2493-2496 '60.
(MIRA 13:12)

(Salt crystals) (Electric fields)

TORBIN, N.M., inzh.

Prebreakdown currents in thick solid dielectrics. Izv.vys. ucheb.zav.;energ. 3 no.10:26-31 O '60. (MIRA 13:11)

1. Tomskiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena seminarom po fizike dielektrikov kafedr diziki, tekhniki vysokikh napryazheniy i elektroizolyatsionnoy i kabel'noy tekhniki.
(Dielectrics)

30772
S/181/61/003/011/004/056
B102/B138

24.7800 (1164, 1385, 1559)

AUTHORS: Vorob'yev, A. A., Vorob'yev, G. A., and Torbin, N. M.

TITLE: Discharge formation processes in solid dielectrics

PERIODICAL: Fizika tverdogo tela, v. 3, no. 11, 1961, 3272-3277

TEXT: Breakdown effects were studied in NaCl, KCl and KBr single crystals. Breakdown was induced by applying a point with positive or negative potential to a crystal face. In NaCl discharge propagates along the [100] direction if the point has negative polarity, along [111] if it has positive polarity (minimum breakdown voltage) and along [110] in the case of positive overvoltage. With growing overvoltage anode sparkover thus changes its direction according to [111]→[110]→[100]. Discharge propagates with $v_{br}=d/t_f$ where d is the thickness of the crystal and t_f the discharge formation time. In order to gain data of great interest for the theory of electric breakdown in solid dielectrics the authors measured the currents passing through the sample before, and in the moment of, breakdown and the time required for the formation of a breakdown. In most experiments the point was of positive polarity and the other electrode, a plate, of

Card 1/4

Discharge formation processes in solid ...

negative. The discharge-forming current i_f increases with increasing sample thickness according to $i_f = ke^{md}$ where k and m are constants. $m = 0.2\ mm^{-1}$ and $k = 4.2 \cdot 10^4$ a (NaCl), $2.5 \cdot 10^4$ a (KCl) and $1.8 \cdot 10^4$ a (KBr) for positive point polarity. For negative polarity $k = 13.5 \cdot 10^4$ a for NaCl. From this it may be seen that the higher the lattice energy the higher must be the discharge-forming current. The energy of discharge formation is given by $w_m = \int_{t_1}^{t_2} uidt$, or, in the case of breakdown with a square pulse ($u = u_{sq} = const$) $w_m = u_{sq} \int_{t_1}^{t_2} idt$. An estimation of the spark channel in NaCl radii yields the following results:

d, mm	2	5	7	10
$W_m \cdot 10^{-5}$ joule	0.3	1.27	3.21	9.85
r, μ	0.64	0.83	1.11	1.63

Card 2/4

The channel diameters measured in incomplete breakdown were between 2 and 4 μ. The channel radii of streamer sparkover were found to be $\sim 10^{-4}$cm. The density of the discharge-formation current was 10^4-10^5a/cm^2. The radius of the luminescent zone in an incomplete breakdown. Light emission starts at currents of 10^{-3}a and is probably due to thermal ionization. Discharge propagates at a rate of $1.4 \sim 1.3 \cdot 10^6$ cm/sec. Conclusions: The channel walls of an incomplete breakdown are melted through by the discharge-forming current. Highest breakdown voltage for negative point polarity and the polarity dependence of the direction of discharge indicate that impact ionization occurs during the formation of the discharge. The fact that discharge propagates faster if the point is positive indicates that discharge formation in rock salt is a process similar to streamer discharge in air. Breakdown voltage and formation current are higher where the lattice energy is higher. The high current densities and the presence of luminescence indicate that thermal and photoionizations may also be possible during breakdown in solid dielectrics. There are 2 figures, 3 tables, and 12 references:

30772
S/181/61/003/011/004/056
Discharge formation processes in solid ... B102/B138

7 Soviet and 5 non-Soviet. The four references to English-language publications read as follows: C. Zener. Proc. Roy. Soc. (A), 145, 523, 1934; A. Hippel. Phys.Rev., 54, 1096, 1938; H. H. Racl. GCR, 44, 8, 445, 1941; D. W. Gilman, J. Stauff. Appl. Phys., 29, 2, 120, 1958.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S. M. Kirova
(Tomsk Polytechnic Institute imeni S. M. Kirov)

SUBMITTED: May 4, 1961

Card 4/4

33329
S/143/61/000/012/001/005
D299/D305

24,7700 (1160, 1164, 1385)

AUTHORS: Leont'yev, Yu.N., and Torbin, N.M., Engineers

TITLE: Effect of the barrier position on the breakdown voltage of solid dielectrics

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 12, 1961, 34 - 38

TEXT: An experimental study is described of the effect of the barrier position on the breakdown voltage of rock-salt. Two types of barriers were used in the experiments: Metal foil 1.5 - 2 μ thick, and triacetate film 3 μ thick. The NaCl specimens consisted of 2 parts of different thickness, their total thickness being d = 5 mm. A conical hole was made in one of the specimens, and the barrier inserted. The results of the experiments are given in two figures and in a table. From the figures it is evident that with the barrier placed at a distance of 0.5 - 2.0 mm from the positive point, the breakdown voltage increases to a maximum. The breakdown of the specimen is accompanied by the breakdown of the barrier, both the metallic and the one of triacetate film. The presence of

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33329
S/143/61/000/012/001/005
D299/D305

Effect of the barrier position ...

the barrier does not affect the start of the breakdown process which takes place in 2 stages: The breakdown of the specimen from the point to the barrier, followed by the breakdown from the barrier to the cathode. In the case of a metallic barrier, the first stage is accompanied by a drop in voltage, followed by an increase toward the breakdown value, and again a sharp drop; the breakdown channel is not continuous (from the first to the second stage). With a dielectric-film barrier, the channel is continuous. The breakdown process begins in the region of maximum field-strength (at the point) and proceeds towards the interior. The cathode processes are of minor importance in the propagation of the discharge; hence the lack of influence of the cathode material on the breakdown voltage, established by other investigators. The increase in the breakdown voltage of solid dielectrics, due to the presence of barriers, could find many applications in high-voltage equipment and in cables. The use of barriers in insulators could improve equipment reliability. However, the present study should be viewed as a first step only. Barriers of metal foil and triacetate film, in NaCl, lead to a 18 - 20 % increase in breakdown voltage. The maximum va-

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Effect of the barrier position ...

lue of the breakdown voltage is observed with barriers placed at a distance equivalent to 20 - 30 % of specimen thickness. Barriers of metal foil and of dielectric film do not affect the start of the breakdown in a nonhomogeneous field. The development of discharge in solid dielectrics of considerable thickness and in gases, exhibits a number of similarities. There are 3 figures, 1 table and 13 Soviet-bloc references.

ASSOCIATION: Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut imeni S.M. Kirova (Tomsk Order of the Red Banner of Labor Polytechnic Institute imeni S.M. Kirov)

PRESENTED: by Nauchnyy seminar kafedry tekhniki vysokikh napryazheniy (Scientific Seminar of the High-Voltage Techniques Department)

SUBMITTED: January 28, 1961

L 33003-00 EWT(1)/EWT(m)/EWP(j)/T IJP(c) WW/GG/RM

ACC NR: AR6016230 SOURCE CODE: UR/0058/65/000/011/E057/E057

AUTHORS: Ushakov, V. Ya.; Torbin, N. M.

60
B

TITLE: Concerning the development of a discharge in solid dielectrics

SOURCE: Ref. zh. Fizika, Abs. 11E440

REF SOURCE: Sb. Proboy dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 124-127

TOPIC TAGS: dielectric breakdown, electric discharge, dielectric strength, organic glass, sodium chloride

ABSTRACT: The channels of incomplete breakdown in rock salt and organic glass are considered. It is shown that the discharge glow zone exceeds by hundreds of times the channel dimensions. It is indicated that thermo-ionization and photoionization processes can occur during the breakdown of dielectrics. Dielectrics having larger dielectric strength have larger discharge-development rates (v). Values v = $(2 \times 10^5 - 1.5 \times 10^7)$ cm/sec were obtained and were found to depend on the value of the excess voltage. [Translation of abstract]

SUB CODE: 20

Card 1/1

20307
S/143/60/000/010/002/011
A189/A026

9,2110 (1001, 1043, 1155)

AUTHOR: Torbin, N. M., Engineer

TITLE: Pre-breakdown currents in solid dielectric of large thickness

PERIODICAL: Energetika, no. 10, 1960, 26-31

TEXT: The author investigates the value and character of currents in the pre-breakdown fields of solid dielectrics under pulse voltage. Experiments were carried out with specimens, 40 x 40 x 15 mm, made of rock salt (NaCl) and KBr crystals. A conical cavity was drilled at one end of the specimens and the electrodes were affixed to them by metal evaporation in vacuum. The thickness of the specimens at the breakdown point varied from 2 to 10 mm. Tests were made with voltage pulses, 0.2 - 3.0 μsec front duration, in a non-uniform field at positive and negative point polarity. The test circuit, shown in Figure 1, consisted of a bridge circuit with a variable capacitor C_1 in one of its branches serving to compensate the capacitive currents. The potential change between the points a and b of the bridge circuit (Fig. 1) was recorded by one tube of a two-tube OK-19M (OK-19M) oscillograph, while the other tube of this oscillograph recorded the current through

Card 1/6

Pre-breakdown currents in ...

the specimen. Both tubes of this oscillograph were fed from the same time-base generator to ascertain the coincidence in time of the current and voltage oscillograms. Based on the analysis of the results obtained, the author concludes that the discharge-shaping current in solid dielectrics can be caused only by the ionization processes. The discharge shaping in thick dielectrics is analogous to the penetration of gases in large gaps. The shaping of the breakdown channel takes place during the discharge-shaping stage, and its expansion during the discharge. The current during the discharge-forming stage increases with the dielectric thickness; it is larger for NaCl than for KBr crystals. Figure 2 shows the oscillograms obtained of current and voltage at positive pulse polarity of the point (Fig. 2 a) and at negative polarity (Fig. 2 b), respectively. Figure 5 shows the maximum current values for NaCl and KBr crystals during the discharge-forming stage. There are 5 figures, 1 photograph, and 17 references: 11 Soviet, 5 English, and 1 German.

ASSOCIATION: Tomskiy politekhnicheskiy institut imeni S. M. Kirov
(Tomsk Polytechnic im. S. M. Kirov)

20307
S/143/60/000/010/002/011
A189/A026

Pre-breakdown currents in ...

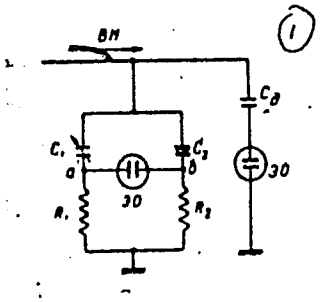
PRESENTED: Seminar po fizike dielektrikov kafedr fiziki, tekhniki vysokikh napryazheniy i elektroizolyatsionnoy i kabel'noy tekhniki (Seminary for Physics of Dielectrics of the Departments of Physics, High-Voltage Engineering, and Electro-Insulation and Cable Engineering)

SUBMITTED: March 17, 1960

Card 3/6

Pre-breakdown currents in ...

Figure 1:
Circuit diagram of test arrangement



Card 4/6

20307
S/143/60/000/010/002/011
A189/A026

Pre-breakdown currents in ...

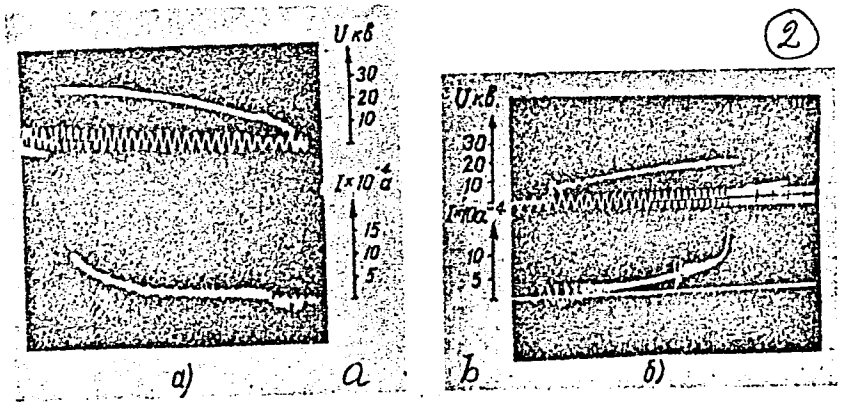


Figure 2:
Oscillograms of current and voltage
a) positive pulse polarity b) negative pulse polarity

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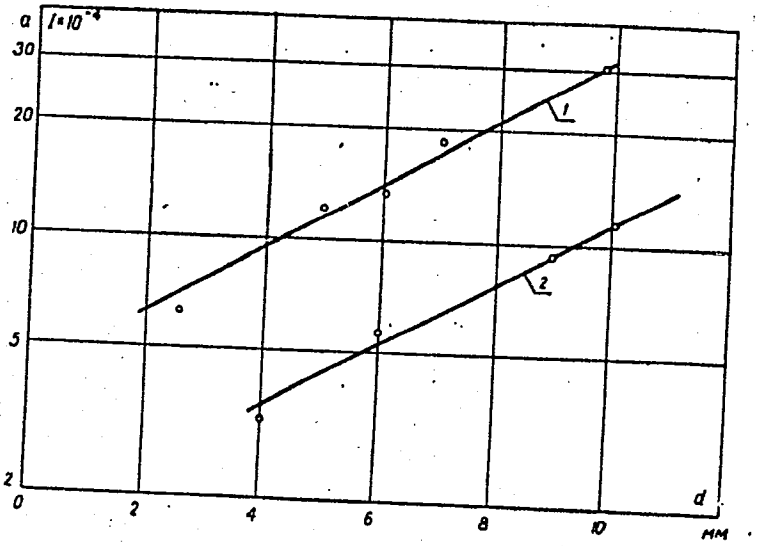
Pre-breakdown currents ...



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20307
S/143/60/000/010/002/011
A189/A026

Figure 5:

Maximum current values for NaCl and KBr crystals during discharge-forming

TORBIN, N.M.

Vsesoyuznaya konferentsiya po fizike dielektrikov. 2d, 1958

Fizika dielektrikov; trudy vtoroy vsesoyuznoy konferentsii (Physics of Dielectrics, Transactions of the 2d All-Union Conference on the Physics of Dielectrics) Moscow, Izd-vo AN SSSR, 1960. 532 p. Errata slip inserted. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Fizicheskiy institut imeni P.N. Lebedeva.

Ed. of Publishing House: Ye.L. Starokadomskaya; Tech. Ed.: I.N. Dorokhina; Editorial Board: (Resp. Ed.) G.I. Skanavi, Doctor of Physics and Mathematics (Deceased), and K.V. Filippova, Candidate of Physics and Mathematics.

PURPOSE: This collection of reports is intended for scientists investigating the physics of dielectrics.

COVERAGE: The Second All-Union Conference on the Physics of Dielectrics held in Moscow at the Fizicheskiy institut imeni P.N. Lebedeva (Physics Institute imeni P.N. Lebedev) in November 1958 was attended by representatives of the principal scientific centers of the USSR and of several other countries. This collection contains most of the reports presented at the conference and summaries of the discussions which followed. The reports in this collection deal with dielectric properties, losses, and polarization, and with specific inductive capacitance of various crystals, chemical compounds, and ceramics. Photoelectrets, ferroelectric crystals, and various radiation and irradiation effects on dielectrics are investigated. The volume contains a list of other papers presented at the conference dealing with polarization, losses, and breakdowns of dielectrics, which were published in the journal Izvestiya AN SSSR, seriya fizicheskaya, No. 1 and 2, 1960. No personalities are mentioned. References accompany each report.

84601

S/181/60/002/010/024/051
B019/B056

24.2400 (1385, 1162, 1144)

AUTHOR: Torbin, N. M.

TITLE: The Incomplete Breakdown and the Emission in NaCl Crystals in Strong Electric Fields

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 10, pp. 2493-2496

TEXT: In the introduction the author discusses the theory of the electrical breakdown of solid dielectrics and also some experimental results. He himself discovered an emission when studying the incomplete breakdown of rocksalt crystals. A voltage pulse was applied to two samples connected in parallel (45x45x30 mm). The amplitude of this voltage pulse somewhat exceeded the breakdown voltage. The glow of the breakdown channel was photographed (Fig. 1). The glow could also be observed with the naked eye. In the microscope it was possible to detect tracks of the channels having a diameter of from 2 - 10μ. In the Table, $(2.94 - 4)\cdot 10^6$ cm/sec is given as the propagation rate of the discharge.

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84601

The Incomplete Breakdown and the Emission in NaCl Crystals in Strong Electric Fields

S/181/60/002/010/024/051
B019/B056

It was found that the glowing occurs during the development of the channel. The main direction of the channel is [111]. The channels have a diameter of 10 - 15μ. Channels perpendicular to the main direction, have a diameter of roughly 2μ. The current, which passes through the crystal at the instant of breakdown, is less than 0.5 a. Summarizing, the author states that a channel discharge in NaCl is accompanied by a glow and that the point discharge in an inhomogeneous field emanates from a positive point in the case of positive polarity of the point. The existence of an emission makes it possible to assume a filament-like development of the breakdown. The author thanks Professor A. A. Vorob'yev for valuable advice. There are 4 figures, 1 table, and 17 references: 11 Soviet, 2 German, 2 US, and 1 Dutch.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S. M. Kirova Kafedra tekhniki vysokikh napryazheniy (Tomsk Polytechnic Institute imeni S. M. Kirov, Chair of High Voltage Technique)

SUBMITTED: September 17, 1959 (initially), February 9, 1960 (after revision)

Card 2/2

TORBIN, N. M., Cand Tech Sci --"Experimental study of the process of developing punctures and destroying solid dielectrics ~~at impulse strain~~." Tomsk, 1961. (Min of Higher and Sec Spec Ed RSFSR. Tomsk Order of Labor Red Banner Polytech Inst im S. M. Kirov) (KL, 8-61, 250)

TORBIN, N.M. (Tomsk)

Development of a discharge in solid dielectrics in a nonhomogenous field. Izv.An SSSR. Otd. tekh. nauk Energ. i avtom no.1:32-34 '61. (MIRA 14:3)

(Dielectrics)
(Breakdown, Electric)

L 19665-63 EWT(1)/BDS/ES(s)-2 AFFTC/ASD/ESD-3/IJP(C)/SSD Pt-4

ACCESSION NR: AR3006989 S/0058/63/000/008/E049/E049

SOURCE: RZh. Fizika, Abs. 8E349

AUTHOR: Torbin, N. M.

TITLE: Experimental investigation of electric breakdown of rock-salt crystals in an inhomogeneous field

CITED SOURCE: Sb. Fiz. shchelochnogaloidn. kristallov. Riga, 1962, 370-372

TOPIC TAGS: electric breakdown, rock salt crystal, inhomogeneous field

TRANSLATION: By using voltage cutoff, the development of a discharge was investigated in electric breakdown of NaCl crystals with d = 15 mm. When the sharp point is positive, the discharge develops with an average speed on the order of 10^8 cm/sec. The propagation

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ACCESSION NR: AR3006989

of the discharge is accompanied by glow in the visible part of the spectrum. The current density at the instant of development of the discharge reaches 10--15 A/mm^2. The initial stage of formation of the discharge channel is observed in the form of dark sections less than 1 mm in diameter, and then broadens to 5--10μ owing to thermal processes occurring upon the passage of the discharge current. The thermal character of a channel formation in the NaCl indicates the presence near the discharge channel of a band that exceeds by tens of times the channel of the incomplete breakdown, and a change in the microhardness. The region of intense ionization is observed with growing channel near the head of the developing discharge and propagates inside the crystal as the channel moves. An increase of U_{br} in the presence of a barrier indicates the possible influence of the positive space charge in the development of the discharge. The presence of radiation and the large current density in the development of the discharge indicate the predominant role of thermal

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L 19665-63

ACCESSION NR: AR3006989

and photoionization processes in breakdown of solid dielectrics.
N. Torbin.

DATE ACQ: 06Sep63 SUB CODE: PH ENCL: 00

Card 3/3

L 44598-66 EWT(1) IJP(c) GG

ACC NR: AR6010511 SOURCE CODE: UR/0196/65/000/010/B009/B010

48
47
B

AUTHOR: Ushakov, V. Ya.; Torbin, N. M.

TITLE: Investigation of the development of a discharge in liquid dielectrics

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 10B53

REF SOURCE: Sb. Proboy dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 227-231

TOPIC TAGS: electric discharge, liquid dielectric, dielectric property

ABSTRACT: Electrographic recording of the development of incomplete discharges was made, in transformer oil (TO), glycerin (G), distilled water (DW), with a lack of any retarding resistances, in a wide range of voltages. Breakdown was accomplished on the falling part of a positive polarity pulse, with a beveled front, $_{avg} = 3.5 \cdot 10^{-7}$ sec. The dependences of the rate of development of the discharge v_{avg} upon excess voltage β (Fig. 1) and voltage U (Fig. 2) (the curves in the drawings are: 1) TO; 2) G; 3) DW are different for the liquids tested and are determined by their physicochemical properties. At the minimum penetration voltage, more highly polarized liquids have higher rates of discharge. In each case the nature of the discharge is also different, and also its variation with excess voltage variation. With an excess voltage $\beta = 1.45-1.5$, in the gap in TO and with $\beta = 1.17-1.2$ in DW, the discharge channel

Card 1/2 UDC: 621.315.615.015.51

L 44598-66

ACC NR: AR6010511

has 2 sections, with a different glow intensity. [Translation of abstract] 5 illustrations, bibliography of 7 titles. [Tomsk Polytechnical Institute im. S. M. Kirov (Tomskiy politekhnich. in-t)] A. Petrashko

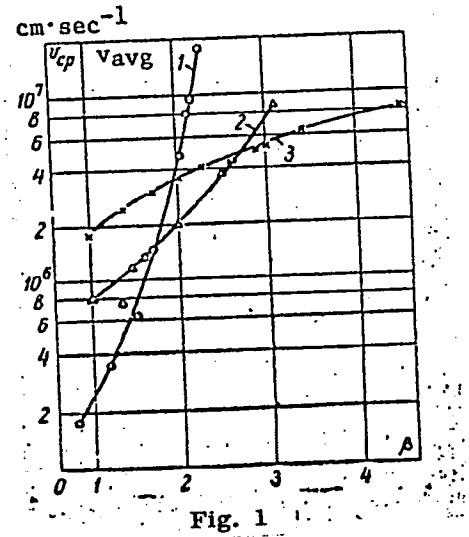

Fig. 1

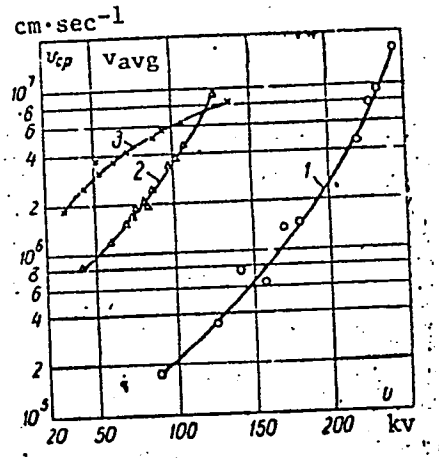

Fig. 2

SUB CODE: 20

Card 2/2

TOKBIN, V.

The PK-2m cutter-loader speeds up coal mine drifting. Mast. ugl. 3 no.6:13-14 Je '54. (MIRA 7:7)

1. Mashinist kombayna shakhty No. 2-bis kombinata Moskvougol'. (Coal mining machinery)

DIKHTYAR, Grigoriy Abramovich. Prinimali uchastiye: TORBIN, V.I.; GUSEV, A.V.; GLADKOV, I.A., prof., doktor ekonom. nauk, otv. red.; LUCHKINA, A.N., red. izd-va; SHEVCHENKO, G.N., tekhn. red.

[Soviet commerce during the period of the development of socialism] Sovetskaia torgovlia v period postroeniia sotsializma. Moskva, Izd-vo Akad. nauk SSSR, 1961. 471 p. (MIRA 14:11)

1. Sektor obrashcheniya Instituta ekonomiki AN SSSR (for Torbin, Gusev).

(Russia--Commerce)

TORBIN, Ya., gvardii podpolkovnik.

In the advanced radio relay company. Voen. sviaz. 16 no.2:25-26 F '58. (MIRA 11:3)
(Radio, Military--Study and teaching)

TORBIN, Ya., podpolkovnik.

Three episodes. Voen. sviaz. 16 no.5:10-11 My '58. (MIRA 11:5)
(World War, 1939-1945--Communications)

TORBIN, Ya., gvardii podpolkovnik.

Commander of a leading company. Voen. sviaz. 16 no.1:17-19 Ja '58.
(Telegraphers--Study and teaching) (MIRA 11:2)

TORBIN, B.F., inzh.; UBAYDULLAYEV, Kh.; ZUFAROV, D.Z., inzh.; Prinimali uchastiye: TONKIKH, P.I.; TORBINA, N.A.

Preparation of cottonseed meal for storage. Masl.-zhir.prom. 28 no.2:39-42 F '62. (MIRA 15:5)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta zhirov (for Torbin, Ubaydullayev). 2. Yangiyul'skiy maslozhirovoy kombinat (for Zufarov).
(Cottonseed)

RUDKOVSKAYA, R. V.; TORBINA, R. M.

Chemical cleaning of spinning machine parts. Khim. volok. no.6:59-62 '62. (MIRA 16:1)

(Spinning machinery)

TORBINA, Ye. A.

Tripolitova, A. A. and Torbina, Ye, A. "A test for cultivating microbes of the typhoid-paratyphid group in silicon media," Sbornik nauch. trudov (Irkut. in-t epidemiologee i mikrobiologii), Issue 4, 1948, p. 202-08

SO: U-3264, 10 April 1953, (Letopis 'nykh Stately, No. 3, 1949

TOVBINA, Ye.L.

BRANDENBURGSKIY, G.L.; TOVBINA, Ye.L.

Comparative evaluation of the effect of carbonated and oxygen baths in hypertonia. Ter.arkh. 22 no.2:64-76 Mr-Ap '50. (CLML 19:3)

1. Of the Cardiological Clinic (Head -- Prof. A.M.Sigal) of the Ukrainian Scientific-Research Institute of Health Resort Therapy in Odessa (Director Candidate Medical Sciences M.V.Lashchevker).

L 12889-63 EPF(c)/EWP(j)/EWT(m)/EDS ASD/APFTC Pr-4/Pc-4 RM/WW

ACCESSION NR: AP3001425 S/0138/63/000/004/0001/0005

AUTHOR: Shatalov, V. P.; Gostev, M. M.; Kry*lova, I. A.; Artemov, V. M.; Shestakova, O. G.; Korbanova, Z. N.; Slukin, A. D.; Sotnikov, I. F.; Torbinskiy, A. N.

TITLE: Low-temperature polymerized butadiene-styrene rubber with a carbon black-oil filler

SOURCE: Kauchuk i rezina, no. 4, 1963, 1-5

TOPIC TAGS: polymerization, carbon black filler, oil filler, butadiene rubber, styrene rubber

ABSTRACT: Studies were conducted on the preparation of stable dispersions of various types of carbon black, with and without surface-active substances. The latter included potassium rosinate, Leukanol, and ammonium caseinate. The dispersions were prepared in ball mills, in jet mills, and by means of a vibrator. The kinetic and aggregate stability of the dispersions were determined. Potassium rosinate and Leukanol produced dispersions which did not separate for several days. The oil emulsion was prepared with the aid of stearic acid and triethanolamine. The carbon black dispersion was mixed with the latex of butadiene-styrene rubber

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L 12889-63
ACCESSION NR: AP3001425

and into it was introduced the oil emulsion. The coagulation of this mass was best achieved by pouring it into a 9% solution of sodium chloride containing 7% sulfuric acid at 40C. It was found that the introduction of carbon black into the latex previous to coagulation had a favorable effect on the technological properties of the vulcanizates and permitted the processing of rubbers with a higher molecular weight. The KhAF brand of carbon black and the use of potassium rosinate as emulsifier produced vulcanized rubbers of superior strength and abrasive properties, with a higher modulus of elasticity and with a better adhesion to the cord. Pasy*nkov, N. V., Bondaryev, A. Ye., and Gergasevich, T. V. participated in the work. Orig. art. has: 3 tables.

ASSOCIATION: Voronezhskiy zavod sinteticheskogo kauchuka i Voronezhskiy shinny*y zavod (Voronezh Synthetic Rubber Plant and Voronezh Tire Plant)

SUBMITTED: 00	DATE ACQ: 30May63	ENCL: 00
SUB CODE: 00	NO REF SOV: 002	OTHER: 002

Card 2/2

TOMBINSKIY, V.; SAVEL'YEV, G.

Welding the faces of a bucket dredge drum. Mor.i rech. flot 13 no.8: 29 D '53. (MLRA 6:12)

(Dredging machinery)

TORBOCHKIN, I.L.

The PS-1 patrol ship. Biul.tekh.-ekon.inform. no.2:62-64 '58.
(MIRA 11:4)
(Lumber--Transportation)
(Ships)

PETROV, Yakov Petrovich; BURGUTIN, K.S., retsenzent; KOLOSOV, V.D., retsenzent; TORBOCHKIN, I.L., retsenzent; KUTUKOV, G.M., redaktor; PITERMAN, Ye.L., redaktor; KOLESNIKOVA, A.P., tekhnicheskiy redaktor.

[Steam powered vessels] Paromotornyi flot. Moskva, Goslesbumizdat, 1955. 306 p. (MLRA 9:1)
(Steamboats)

SAKSONOV, L.G.; DODIN, Ya.L.; SOKOLOVSKIY, L.O.; TORBOCHKIN, L.I.

Exothermic heating of mold risers for steel alloy ingots. Lit. proizv. no.9:12 S '62. (MIRA 15:11)
(Steel ingots) (Risers (Founding))

DODIN, Yakov L'vovich[deceased]; SAKSONOV, Lev Geselevich; SOKOLOVSKIY, Lev Osipovich; TORBOCHKIN, Lev Isaakovich; MITIN, V.I., red.; VAYNSHTEYN, Ye.B., tekhn. red.

[Molds for alloyed steel ingots] Izlozhnitsy dlia slitkov legirovannykh stalei. Moskva, Metallurgizdat, 1963. 191 p. (MIRA 16:5)

(Ingot molds) (Steel ingots)

TORBOCHKIN, L.I.

Cutting Machines

Calculation of the founding process in casting cutting tools. Stan. i instr. 23, no. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, NOVEMBER 1952 ~~1953,~~ Uncl.

GUBERNIYEV, M.A.; TORBOCHKINA, L.I.

Phosphorus compounds in some actinomycetes and their connection with antibiotic activity. Antibiotiki 6 no.8:752-761 Ag '61. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ACTINOMYCES) (ANTIBIOTICS) (PHOSPHORUS COMPOUNDS)

GUBERNIYEV, M.A.; TORBOCHKINA, L.I.; NAVOL'NEVA, I.N.

Mechanism of glucose dissimilation in the erythromycin producer. Biokhimiia 28 no.3:388-394 My-Je '63. (MIRA 17:2)

1. All-Union Research Institute of Antibiotics, Moscow.

TORDOCHKINA, L. I., GUBERNIYEV, M. A. (USSR)

"Influence of Phosphorus on the Metabolism of Hexose and Pentose Phosphates in Macolide Producers."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

GUBERNIYEV, M.A.; TORBOCHKINA, L.I.; BONDAREVA, N.S.

Polyphosphate characteristics of volutin granules from Act. Antibiotiki 6 no.1:5-9 Ja '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ACTINOMYCES) (PHOSPHATES)

GUBERNIYEV, M.A.; TORBOCHKINA, L.I.

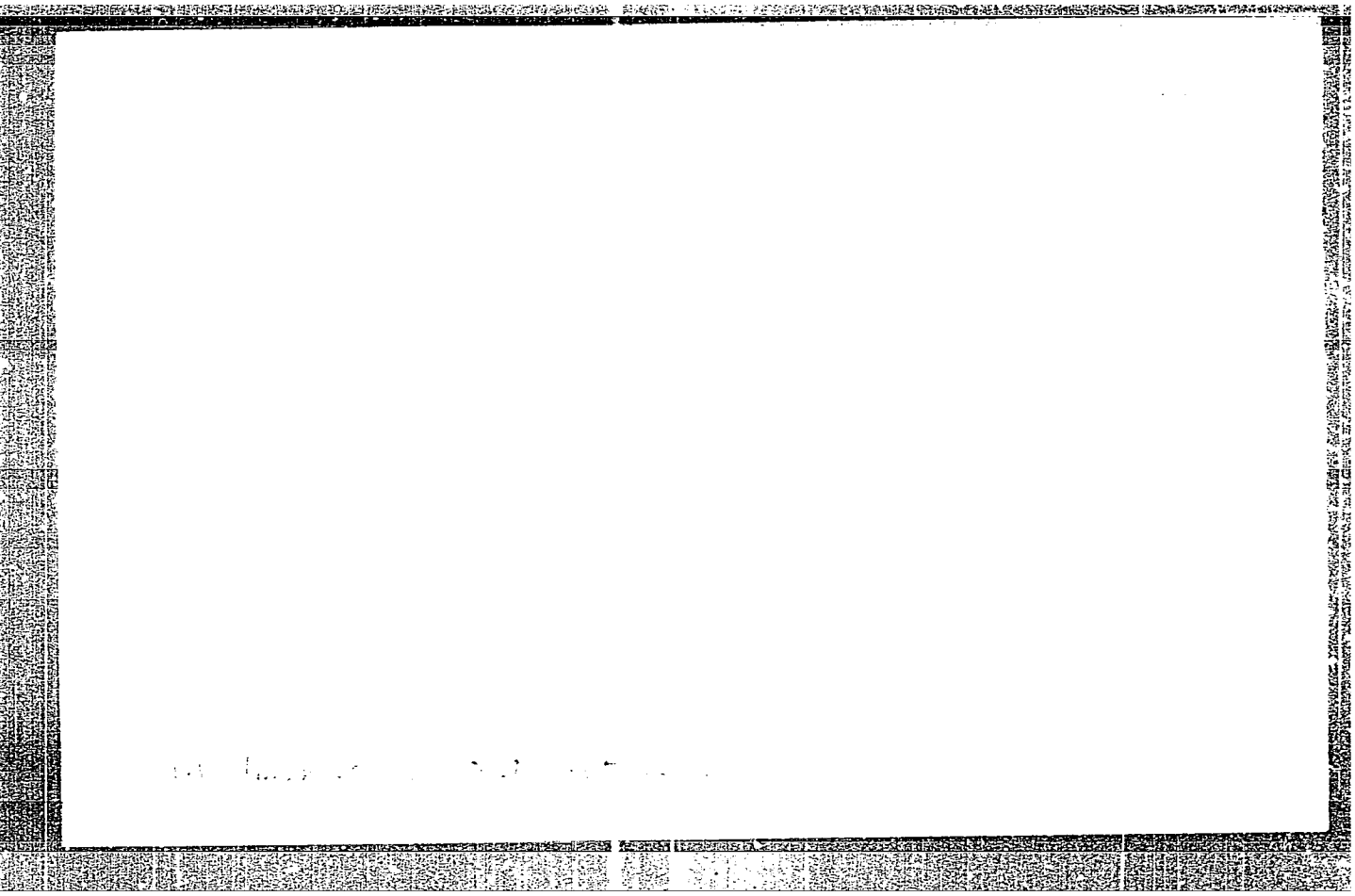
Effect of phosphorus on the metabolism of hexose and pentose phosphates in Act. erythreus. Antibiotiki 6 no.7:636-642 Jl '61. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov Ministerstva zdravookhraneniya SSSR.
(ACTINOMYCES) (HEXOSE PHOSPHATES) (PENTOSE PHOSPHATES)

GUBERNIYEV, M.A.; UGOLEVA, N.A.; TORBOCHKINA, L.I.

Nucleic acids and phosphorus compounds in the mycelium of Actinomyces aureofaciens at various stages of development. Antibiotiki 1 no.3: 8-11 My-Je '56. (MLRA 9:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCES.
aureofaciens, nucleic acids & phosphorus cpds. metab. in various stages of develop. (Rus))
(PHOSPHORUS, metabolism,
Streptomyces aureofaciens, in various stages of develop (Rus))
(NUCLEIC ACIDS, metabolism,
same)



GUBERNIYEV, M.A.; TOHBOCHKINA, L.I.; KATS, L.N.

Polyphosphates in Act. aureofaciens. Antibiotiki 4 no.6:24-30 N-D '59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(PHOSPHATES chem.)
(ACTINOMYCES chem.)

GUBERNIYEV, M.A.; TORBOCHKINA, L.I. (Moskva)

Specific effect of arsenate on some metabolic reactions. Vest. AMN S.S.S.R. 17 no.12:71-81 '62. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ARSENIC IN THE BODY) (METABOLISM)

TORBOCHKINA, L.I.; BONDAREVA, N.S.

Effect of phosphates on the composition of phosphorus fractions in the mycelium of Actinomyces antibioticus. Antibiotiki 8 no. 11:1006-1011 N '63. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

TORBOCHKINA, L.I.; DORMIDOSHINA, T.A.; ZAYTSEVA, L.P.

Carbohydrate metabolism in oleandomycin-producing Actinomyces antibioticus. Mikrobiologiia 33 no.1:162-166 Ja-F '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov (VNIIA).

TORBOCHKINA, L.I.; DORMIDOSHINA, T.A.

Mechanism of glucose dissimilation in the oleandomycin-producing Actinomyces antibioticus. Mikrobiologiia 33 no.2:325-331 Mr-Ap '64. (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva.

TORBOCHKINA, L.I.; DORMIDOSHINA, T.A.; NAVOL'NEVA, I.N.

Pathways of pyruvic acid formation in Actinomyces erythreus and Act. antibioticus producing macrolide antibiotics. Biokhimiia 30 no.2:388-394 Mr-Ap '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov Ministerstva zdravookhraneniya SSSR, Moskva.

TORBOCHKINA, L.I.

Composition of bacterial cell membranes and the effect of penicillin. Antibiotiki 10 no.3:272-283 Mr '65,
(MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva.

TORBOV, I.

"Rationalization measures during 1956."

p.1 (Ratsionalizatsiia, Vol. 7, no. 3, 1957, Mar. Sofiia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

TORBOV, I.

"What the results of the development of rationalization during the first half of 1957 indicate."

p. 8 (Ratsionalizatsiia, Vol. 7, no. 11, Oct. 1957, Sofiia, Bulgaria.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 6, June 1958.

TOMEOV, I.

TOMEOV, I. Nationalization activities during the first half of 1956. p. 5.

Vol. 6, No. 10, Oct. 1956.
RATSIONALIZATSIIA.
TECHNOLOGY
Sofiia, Bulgaria

So: East European Accession, Vol. 6, No. 3, March 1957

TORBOV, Tsvetan, inzh.; KOICHEV, Todor, inzh.

Systematic breakdowns of the main oil pump in the steam turbine of the Hydroelectric-Power Station "Pernik." Elektroenergiia 13 no.4:14-17 Ap '62.

GEORGIEV,A.,inzh; TORBOV,Tsv.,inzh; STATEV,K.,inzh.

The Bulgarian steam boiler 35 t/h for industrial purposes.
Mashinostroene 11 no.2:23-27 F '62

S/262/62/000/006/002/021
I007/I207

AUTHORS: Koychev Todor, Torbov Tsvetan

TITLE: Causes of failure in the moving blades of a steam turbine.

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk 42. Silovye ustanovki, no.6, 1962, 25, abstract 426130 (Elektro-energiya , v.12, no.6, 1961, 25-29)[Abstractor's note: original language of paper: Bulgarian].

TEXT: A case is studied of material fatigue in the moving (rotor) blades of a steam turbine installed at an electric power plant in Bulgaria. The causes of failure are analysed and measures taken for elimination of failure are described. Comparison is made between the properties of blades of old and new design.

[Abstractor's note: Complete translation.]

Card 1/1

KOICHEV, Todor, inzh.; TORBOV, Tsvetan

Causes for damaging the working vanes of No. 2372 steam turbine. Elektroenergiia 12 no.6:25-29 '61.

(Steam turbines)

TONCHEV, Iv., inzh. khim; TORBOV, Tsvetan, inzh.; BEICHEV, K., inzh.

How to avoid slagging in the combustion chambers of the TP-170 boilers at the burning of certain mixtures of lignite and brown coals. Elektroenergiia 13 no.3:3-7 Mr '62.

KHADZHOV, Blagoi, inzh.; ZHEKOV, Zheko, inzh.; TORBOV, Tsvetan, inzh.; TONCHEV, Ivan, inzh. khim.

The Young fire grate and its applicability to Bulgarian coals. Tekhnika Bulg 11 no.9:337-339 '62.

KHADZHOV, Blagoi, inzh.; TORBOV, Tsvetan, inzh.; TONCHEV, Ivan, inzh. khim.

Combustion of various mazuts with steam-powered and mechanical burners. Tekhnika Bulg 13 no. 3:16-18 '64.

L 10256-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD
ACC NR: AP6001226 SOURCE CODE: UR/0363/65/001/012/2100/2101

AUTHOR: Klinkova, L. A.; Torbov, V. I.; Gordeyev, I. V.

ORG: Institute of New Chemical Problems, Academy of Sciences SSSR (Institut novykh khimicheskikh problem Akademii nauk SSSR)

TITLE: Crystallization of indium phosphide from the vapor phase

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 12, 1965, 2100-2101

TOPIC TAGS: indium phosphide, crystal growing, chemical transport reaction, single crystal, crystallization

ABSTRACT: A preliminary study has been made of the effect of chemical transport reaction conditions on the preparation of InP single crystals from the vapor phase. The experiments were conducted in sealed evacuated (up to 6×10^{-6} mm Hg at 20C) quartz ampoules using polycrystalline cubic InSb ($a = 5.869$ Å) as the starting material. The transport temperatures were: in the heterogeneous reaction zone, 950C; in the crystallization zone, 900C. The transporting agents were I or, for a faster reaction, InI. Depending on the transporting agent, concentration, and ampoule diameter the following InP crystals were prepared: 1) n-type crystals of cubic modification up to 2 mm; 2) dendrites up to 3 mm; or 3) polyhedral crystals up to 2 mm. The prerequisites for controlled growing of InP single crystals are an elucidation of the mechanism of the reaction mixture transport to the crystallization zone, and the

Card 1/2 UDC: 546.682'181.1:548.19

L 10256-66

ACC NR: AP6001226

relation between the transport process and crystal growth. Orig. art. has: 1 figure. [BO]

SUB CODE: 20/ SUBM DATE: 29Jun65/ ORIG REF: 001/ OTH REF: 011/ ATD PRESS: 4166

Card 2/2

TORBUS, G.

Polish Technical Abstracts
No. 4, 1953
Mining

236. 616.916 : 622 : 613.62

Pelkert E., Torbus G. The Tetanus Problem in the Mining Industry.

„Zagadnienie tężca w górnictwie". Ochrona Pracy. No. 3, 1953, pp.79—82.

The authors supplement the statistics quoted in their article with a description of three cases from their own experience. They refer to the means whereby the tetanus bacillus or its germ penetrate from the surface into the mine. They analyse the means so far practiced to prevent infection with the tetanus bacillus, and come to the conclusion that the most effective prophylactic is inoculation of mine crews with anti-tetanus anatoxin. Such inoculation offers the human system active immunity, which is superior to the passive immunity offered by anti-tetanus serum (antitoxin). Prophylactic inoculation with anatoxin is simple; it never fails, offers immunity over long periods and causes no complications.

MAZUR, Grazyna; TORBUS, Wieslawa; ZAKOWSKA, Barbara; DADLEZ, Zygmunt

Cytochemical reactions and clinical results in cases of the resistance of tubercle bacilli to isonicotinic acid hydrazide. Polski tygod. lek. 14 no.24:1092-1096 15 June 59.

1. (Ze Szpitala Przeciwgruzliczego w Cieszynie: dyr. dr Maria Krasowska i Panstwowego Sanatorium dla Dzieci i Mlodziezy w Istebnej; dyrektor: dr Zygmunt Dadlez).
(ISONIAZID, therapy)

KRASOWSKA, Maria; MAZUR, Grazyna; TORBUS, Wieslawa

Microbiological method in the determination of isonicotinic acid hydrazide (INH) level in the blood and its role in patients with pulmonary tuberculosis. Polski tygod. lek. 16 no.12:435-440 20 Mr '61.

1. Szpital Przeciwgruzliczy w Cieszynie; dyrektor: dr M. Krasowska.

(ISONIAZID blood)

MAZUR, Grazyna; TORBUS, Wieslawa

Catalase in the blood in patients with pulmonary tuberculosis. Polski tygod. lek. 16 no.13:467-470 27 Mr '61.

1. Ze Szpitala Przeciwgruzliczego w Cieszynie; dyrektor: dr M. Krasowska.

(CATALASE blood) (TUBERCULOSIS PULMONARY blood)

MAZUR, Grazyna; TORBUS, Wieslawa

Cytological studies on sputum and bronchial secretions in pulmonary and bronchial diseases. Gruzlica 29 no.9:761-776 S '61.

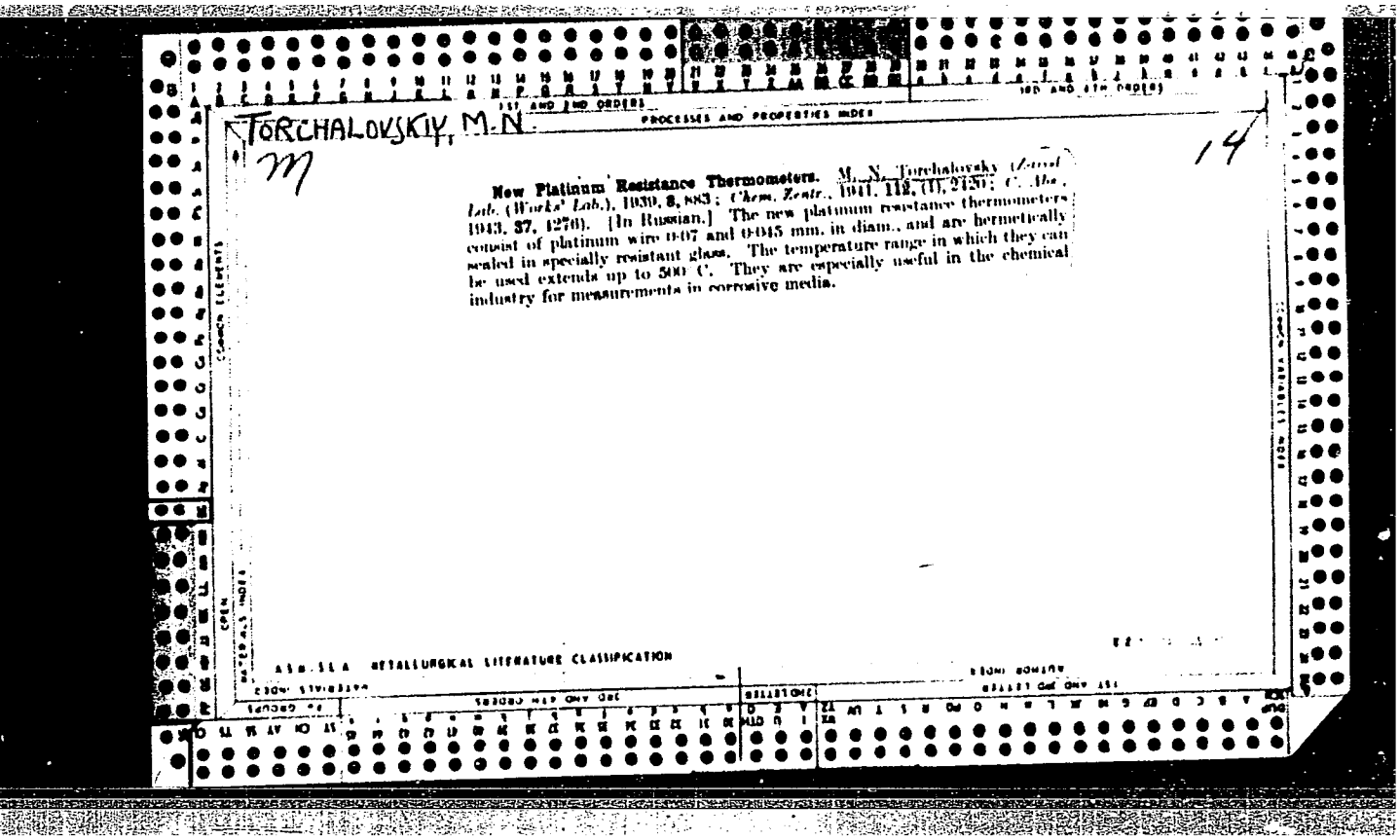
1. Ze Szpitala Przeciwgruzliczego w Cieszynie Dyrektor: dr Maria Krasowska.

(SPUTUM) (LUNG DISEASES diag)
(LUNG NEOPLASMS diag) (BRONCHI dis)

TORCEA, V.

Systematic support to the application of hygiene and labor protection norms. Munca sindic 7 no.7:18-20 Jl '63.

1. Presedinte al comitetului sindicatului de la Intreprinderea Electro-Centrale Bucuresti.



TORCHALOVSKIY, M.N.

M

14

New Platinum Resistance Thermometers. M. N. Torchalovsky (*Central Lab.* (*Works' Lab.*), 1939, **8**, 883; *Chem. Zentr.*, 1941, **112**, (I), 2450; *C. Abs.*, 1943, **37**, 1270). [In Russian.] The new platinum resistance thermometers consist of platinum wire 0·07 and 0·045 mm. in diam., and are hermetically sealed in specially resistant glass. The temperature range in which they can be used extends up to 500° C. They are especially useful in the chemical industry for measurements in corrosive media.

TORCHANOV, I.

"Standardizing the production of holdfasts for lightning conductors."

p. 44 (Ratsionalizatsiia) Vol. 7, no. 8, Aug. 1957
Sofiia, Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

TORCHANOV, Ivan, inzh.

Electroautomation is making its way on the stage. Tekhnika Bulg 13 no.5:26-28 '64

ACC NR: AP6035732 (A,N) SOURCE CODE: UR/0413/66/000/019/0095/0095

INVENTOR: Bereslavksiy, S. I.; Torchenkova, V. A.

ORG: none

TITLE: Method of predicting failures and detecting malfunctioning elements of various equipment. Class 42, No. 186737

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 95

TOPIC TAGS: paint, heat change of state, electronic equipment , circuit failure

ABSTRACT: An Author Certificate has been issued for a method of prediciting failures and detecting mulfunctioning elements in various equipment (e.g., electronic). The method is based on the differentiated control of the heat levels of various elements of equipment according to the change in the light falling on the surface of these elements, which consists of a heat-indicating paint. To improve the visual indication of change in the color of the light-indicating paint during the operation of the controlled elements, on portions of the surfaces of elements, mixed with portions covered with heat-indicating paint, is applied a heat-resistant paint, the color of which corresponds to the color of the heat-indicating piant at a temperature below critical.

SUB CODE: 09, 11/ SUBM DATE: 26Aug64/

Card 1/1 UDC: 536.522.3

An application of the isotope exchange method to the structure study of aquapoly and heteropoly compounds. Vikt. I. Spitsyn and E. A. Torchenkova (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 95, 289–92(1954).—The W^{188} isotope (designated W^*) was used in the study of the relative stability of tungstate anions in soln. The purity of the isotope compds. was tested by the half-life detn. and the measurement of the max. energy of the β-radiation. Silico- and phosphotungstic acids were prepd. from the ordinary and W^* para- and metatungstates. The double-exchange reaction between the para- and metatungstates did not proceed instantaneously (contrary to Souchay, *C.A.* 38, 6224[1]; 40, 4310[3]). The ordinary tungstate anion did not enter into double-exchange reactions with the heteropoly anions, while the hexatungstate anion of the paratungstate did, which might indicate it to be the structural unit of heteropoly anions. Na phosphotungstate and the acidified $Na_2W^*O_4$ soln. interact very rapidly while the crystals of $Na_2W^*O_4$ react much more slowly than does the freshly formed paratungstate. Two heteropoly compds., the radioactive silicophosphotungstic acid and the phosphotungstic acid, interact to an extent of only 20% at pH 1.8 in any length of time between 5 min. and 240 hrs. At higher pH, the reaction is more rapid. The bondings of the added ions in the inner spheres in metatungstate anions and the phosphotungstate anions appear to be quite different. W. M. Sternberg

(1)

SPITSYN, Vikt.I.; TORCHENKOVA, Ye.A.

Study of the conversions of p-tungstate ion in solutions with the aid of a mixed sodium-cesium salt. Zhur.neorg.khim. 1 no.8:1794-1797 Ag '56. (MLRA 9:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova, Laboratoriya neorganichiskoy khimii.
(Tungstates)

SOV/78-3-12-31/36

AUTHORS: Torchenkova, Ye. A., Spitsyn, Vikt. I.

TITLE: Investigation of the Isotope Exchange Between the Anions of Several Heteropoly Acids (Issledovaniye izotopnogo obmena mezhdu anionami nekotorykh geteropolikislot)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 12, pp 2798-2800 (USSR)

ABSTRACT: The authors investigated in detail the influence of the pH of the medium upon the velocity of exchange of inner addenda between phosphoro-tungstic and silico-tungstic acids. W^{185} isotopes were used in the investigations. In acid medium (pH~2) the exchange at room temperature is independent of the time and amounts to about 20%. At boiling temperature the exchange increases to 30% after three hours and to 50% after 16 hours. In weakly acid medium (pH~4) the exchange is complete. In almost neutral solutions the exchange is 40%, although this reaches 80% at the boiling temperature. The velocity of the exchange apparently depends upon two factors, the degree of hydrolysis of the heteropoly anions and the nature of the tungstate ions formed.

Card 1/2

SOV/78-3-12-31/36

Investigation of the Isotope Exchange Between the Anions of Several Heteropoly Acids

There are 2 tables and 6 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, Kafedra neorganicheskoy khimii (Moscow State University imeni M. V. Lomonosov, Chair of Inorganic Chemistry)

SUBMITTED: October 28, 1957

Card 2/2

1959

S/020/60/132/03/43/066
B004/B007

5.2500
5.4500 (B)

AUTHORS: Spitsyn, Vikt.I., Academician, Torchenkova, Ye. A., Glazkova, I. N.

TITLE: The Influence of the Radioactive Radiation of a Solid on the Processes of Its Dissolution

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 3, pp. 643-645

TEXT: The authors investigated the solubility of $BaSO_4$ which was traced with S^{35}. They describe the production of $BaSO_4$, the specific surface of which was determined by means of a microscope and an electron microscope. The particles had a size of 2.7-8.1 μ. Furthermore, the activity of precipitate and solution was measured in intervals of time. Fig. 1 shows the kinetics of $BaSO_4$ dissolution of different activities at 20°C. $BaSO_4$ was obtained by mixing equivalent quantities of 0.1 N solutions of $BaCl_2$ and Na_2SO_4. With a specific radioactivity of the preparation of 0.7-1.0 milli-

Card 1/3

curie/g considerable oversaturation was observed, which decreased after 25 h. In the case of preparations with 9-20 millicuries/g the concentration of the dissolved $BaSO_4$ increased proportionally with time. The solubility of $BaSO_4$ is increased by an excess of Na_2SO_4, but especially by an excess of $BaCl_2$ (Fig. 2). If instead of Na_2SO_4 a 0.1 N H_2SO_4 is used for the production of $BaSO_4$, solubility decreases (Figs. 3,4), but the kinetics of solubility shows the same phenomena as represented in Fig. 1. The authors explain this phenomena as being due to β-radiation, by which the electric double layer at the interface is influenced. This influence acts in a similar way on the dissolution as the ion strength of the solution. The occurrence of a maximum is asoribed to a change in the interaction between β-particles and the substance with an increased number of β-particles. There are 4 figures and 14 references: 9 Soviet, 1 Austrian, 1 French, 1 German, and 1 Dutch.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

31239

The Influence of the Radioactive Radiation of a Solid on the Processes of Its Dissolution

S/020/60/132/03/43/066
B004/B007

SUBMITTED: February 24, 1960

4

Card 3/3

SPITSYN, Vist.I., akademik; TORCHENKOVA, Ye.A.; GLAZKOVA, I.N.

Process of solution of barium sulfate tagged with two radioactive indicators. Dokl.AN SSSR 133 no.5:1111-1112 Ag '60.
(MIRA 13:8)

1. Institut fizicheskoy khimii Akademii nauk SSSR.
(Barium sulfate) (Barium--Isotopes) (Sulfur--Isotopes)

SPITSYN, Vikt.I.; TORCHENKOVA, Ye.A.; STEPANOVA, G.G.

Cerium molybdate method for determining radioactive cesium.
Atom. energ. 15 no.6:519-520 D '63. (MIRA 17:1)

Chemistry

Abstract: The addition of perimolybdic acid to solutions of trivalent rare

region from 2mm to 350 millimicrons. The [illegible]

[illegible]

TORCHIGIN, V.P.

Concerning O.N. Litvinenko and V.I. Soshnikov's article "Synthesis of nonuniform lines based on the solution of the inverse problem of Sturm-Liuville." Radiotekh. i elektron. 8 no.11:1959 N '63. (MIRA 17:1)

KATKOV, G. G., TORCHIN, Ya. G.

Weaving.

Means of increasing the effectiveness of automatic weaving. Tekst. prom 12 No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952, Uncl.

TORCHIN, Ya.G.

Distribution of assortment in automatic loom setting. Biul. tekh.-ekon.inform. no.11:53-55 '58. (MIRA 11:12)
(Looms)

TURCHANINOV, A.A., inzh.; Prinimali uchastiye: TORCHIN, Ya.G., starshiy nauchnyy sotrudnik; USTYUKHIN, I.I., starshiy nauchnyy sotrudnik; ALEKSEYEVA, T.A., mladshiy nauchnyy sotrudnik; KRASNOIYEVTSEVA, N.V., mladshiy nauchnyy sotrudnik; GORDON, V.N., starshiy tekhnik-laborant; SAVINA, L.A., starshiy tekhnik-laborant; SOROKINA, A.I., starshiy tekhnik-laborant.

Determining the labor input for the manufacture of the basic types of production in the woolen and worsted industry. Nauch.-issl. trudy TSNIIShersti no.18:185-248 '63.

(MIRA 18:1)

TORCHIN, Ya.G.

Efficiency in using shuttleless looms in the woolen industry. Biul-tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.3:58-61 '64. (MIRA 17:9)

KATKOV, G. G., IGROHIN, Ye., G.

Weaving

Means of increasing the effectiveness of automatic weaving. Tekst. prom 12, No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952 1953, Uncl.

TORCHINSKAYA, E.M., aspirant

Designing rapidly revolving blades of variable screw pitch for flexure in a field of centrifugal forces; asymtotic method. Trudy MGI no.29:111-117 '59. (MIRA 14:4)

(Flexure) (Blades)

TORCHINSKAYA, E.L., aspirant

Asymptotic method of calculating the bend of blades having a varying screw rate at high speeds of rotation. Nauch. trudy MGI no.23:221-231 '58. (MIRA 15:12)
(Fans, Mechanical)

TORCHINSKAYA, O.L.